



SEQUENCE LISTING

<110> Stanford University  
Clayberger, Carol  
Krensky, Alan  
Buelow, Roland

<120> IMMUNOMODULATING DIMERS

<130> 28600-20200.23

<140> 08/653,294

<141> 1996-05-24

<150> US 08/222,851

<151> 1994-04-05

<150> US 07/844,716

<151> 1992-03-02

<150> US 07/755,584

<151> 1991-09-03

<150> US 07/672,147

<151> 1991-03-19

<150> US 07/561,246

<151> 1990-07-30

<150> US 07/008,846

<151> 1987-01-30

<160> 42

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 10

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<213> Homo sapiens

<220>

<221> VARIANT

<222> (1)...(10)

<223> Xaa at location 2 is E or V;  
Xaa at location 3 is D,S or N;  
Xaa at location 5 is R or G;  
Xaa at location 6 is I or N;

<220>

<223> Xaa at location 7 is a hydrophobic or small amino acid  
Xaa at location 8 is R or L;  
Xaa at location 9 is G or R;  
Xaa at location 10 is a hydrophobic or small amino acid

<400> 1

Arg Xaa Xaa Leu Xaa Xaa Xaa Xaa Xaa

1

5

10

<210> 2  
<211> 10  
<212> PRT  
<213> Homo sapiens

<220>  
<221> VARIANT  
<222> (1)...(10)  
<223> Xaa at location 1 is a hydrophobic or small amino acid;  
Xaa at location 2 is G or R;  
Xaa at location 3 is R or L;  
Xaa at location 4 is a hydrophobic or small amino acid;  
<220>  
<223> Xaa at location 5 is I or N;  
Xaa at location 6 is R or G;  
Xaa at location 8 is D,S or N;  
Xaa at location 9 is E or V

<400> 2  
Xaa Xaa Xaa Xaa Xaa Xaa Leu Xaa Xaa Arg  
1 5 10

<210> 3  
<211> 9  
<212> PRT  
<213> Homo sapiens

<220>  
<221> VARIANT  
<222> (1)...(9)  
<223> Xaa at location 3 is Any Amino Acid;  
Xaa at location 6 is N or I; or any amino acid of at least five  
carbon atoms;  
Xaa at location 7 is I or hydrophobic or small amino acid;  
<220>  
<223> Xaa at location 8 R or any aliphatic amino acid of at least five  
carbon atoms;  
Xaa at location 9 is G or R or any aliphatic amino acid

<400> 3  
Arg Glu Xaa Leu Arg Xaa Xaa Xaa Xaa  
1 5

<210> 4  
<211> 6  
<212> PRT  
<213> Homo sapiens

<400> 4  
Arg Ile Ala Leu Arg Tyr  
1 5

<210> 5  
<211> 6  
<212> PRT  
<213> Homo sapiens

<400> 5  
Arg Ile Leu Leu Arg Tyr  
1 5

<210> 6  
<211> 6  
<212> PRT  
<213> Homo sapiens

<400> 6  
Tyr Arg Leu Leu Ile Arg  
1 5

<210> 7  
<211> 6  
<212> PRT  
<213> Homo sapiens

<400> 7  
Tyr Arg Leu Ala Ile Arg  
1 5

<210> 8  
<211> 10  
<212> PRT  
<213> Homo sapiens

<400> 8  
Arg Glu Asn Leu Arg Ile Ala Leu Arg Tyr  
1 5 10

<210> 9  
<211> 10  
<212> PRT  
<213> Homo sapiens

<400> 9  
Tyr Arg Leu Ala Ile Arg Leu Asn Glu Arg  
1 5 10

<210> 10  
<211> 10  
<212> PRT  
<213> Homo sapiens

<400> 10  
Arg Glu Asn Leu Arg Ile Leu Leu Arg Tyr  
1 5 10

<210> 11  
<211> 10  
<212> PRT  
<213> Homo sapiens

<400> 11  
Tyr Arg Leu Leu Ile Arg Leu Asn Glu Arg  
1 5 10

<210> 12  
<211> 10  
<212> PRT  
<213> Homo sapiens

<400> 12  
Arg Glu Asp Leu Arg Ile Ala Leu Arg Tyr  
1 5 10

<210> 13  
<211> 10  
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<213> Homo sapiens

<400> 13  
Tyr Arg Leu Ala Ile Arg Leu Asp Glu Arg  
1 5 10

<210> 14  
<211> 10  
<212> PRT  
<213> Homo sapiens

<400> 14  
Arg Glu Asp Leu Arg Ile Leu Leu Arg Tyr  
1 5 10

<210> 15  
<211> 10  
<212> PRT  
<213> Homo sapiens

<400> 15  
Tyr Arg Leu Leu Ile Arg Leu Asp Glu Arg  
1 5 10

<210> 16  
<211> 12  
<212> PRT  
<213> Homo sapiens

<400> 16  
Tyr Arg Leu Leu Ile Arg Arg Ile Leu Leu Arg Tyr  
1 5 10

<210> 17  
<211> 12  
<212> PRT  
<213> Homo sapiens

<400> 17  
Tyr Arg Leu Leu Ile Arg Arg Ile Ala Leu Arg Tyr  
1 5 10

<210> 18  
<211> 12

<212> PRT  
<213> Homo sapiens

<400> 18  
Tyr Arg Leu Ala Ile Arg Arg Ile Leu Leu Arg Tyr  
1 5 10

<210> 19  
<211> 12  
<212> PRT  
<213> Homo sapiens

<220>  
<221> VARIANT  
<222> (1)...(12)  
<223> Xaa = D-Arginine

<400> 19  
Tyr Arg Leu Ala Ile Xaa Arg Ile Ala Leu Arg Tyr  
1 5 10

<210> 20  
<211> 14  
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<213> Homo sapiens

<220>  
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<222> (1)...(14)  
<223> Xaa = D-Isoleucin

<400> 20  
Tyr Arg Leu Ala Ile Arg Ile Xaa Arg Ile Leu Leu Arg Tyr  
1 5 10

<210> 21  
<211> 15  
<212> PRT  
<213> Homo sapiens

<400> 21  
Ala Tyr Arg Leu Leu Ile Lys Val Ile Arg Ile Val Leu Lys Tyr  
1 5 10 15

<210> 22  
<211> 17  
<212> PRT  
<213> Homo sapiens

<400> 22  
Ser Tyr Lys Leu Val Ile Lys Ile Asn Asn Ile Arg Ile Val Val Lys  
1 5 10 15  
Phe

<210> 23  
<211> 10

<212> PRT  
<213> Homo sapiens

<400> 23  
Arg Glu Asp Leu Arg Thr Leu Leu Arg Tyr  
1 5 10

<210> 24  
<211> 10  
<212> PRT  
<213> Homo sapiens

<400> 24  
Arg Glu Ser Leu Arg Asn Leu Arg Gly Tyr  
1 5 10

<210> 25  
<211> 10  
<212> PRT  
<213> Homo sapiens

<400> 25  
Arg Glu Asn Leu Arg Thr Ala Leu Arg Tyr  
1 5 10

<210> 26  
<211> 20  
<212> PRT  
<213> Homo sapiens

<400> 26  
Tyr Arg Leu Ala Ile Arg Leu Asn Glu Arg Arg Glu Asn Leu Arg Ile  
1 5 10 15  
Ala Leu Arg Tyr  
20

<210> 27  
<211> 20  
<212> PRT  
<213> Homo sapiens

<400> 27  
Tyr Gly Arg Leu Asn Arg Leu Ser Glu Arg Arg Glu Ser Leu Arg Asn  
1 5 10 15  
Leu Arg Gly Tyr  
20

<210> 28  
<211> 20  
<212> PRT  
<213> Homo sapiens

<400> 28  
Tyr Arg Leu Ala Thr Arg Leu Asn Glu Arg Arg Glu Asn Leu Arg Ile  
1 5 10 15  
Ala Leu Arg Tyr  
20

<210> 29

<211> 20

<212> PRT

<213> Homo sapiens

<400> 29

Tyr Arg Leu Ala Ile Arg Leu Asn Glu Arg Arg Glu Asn Leu Arg Thr

1

5

10

15

Ala Leu Arg Tyr

20

<210> 30

<211> 20

<212> PRT

<213> Homo sapiens

<400> 30

Tyr Arg Leu Ala Thr Arg Leu Asn Glu Arg Arg Glu Asn Leu Arg Thr

1

5

10

15

Ala Leu Arg Tyr

20

<210> 31

<211> 20

<212> PRT

<213> Homo sapiens

<400> 31

Tyr Arg Leu Ala Ile Arg Leu Asn Glu Arg Tyr Arg Leu Ala Ile Arg

1

5

10

15

Leu Asn Glu Arg

20

<210> 32

<211> 25

<212> PRT

<213> Homo sapiens

<400> 32

Trp Asp Arg Glu Thr Gln Ile Cys Lys Ala Lys Ala Gln Thr Asp Arg

1

5

10

15

Glu Asn Leu Arg Ile Ala Leu Arg Tyr

20

25

<210> 33

<211> 15

<212> PRT

<213> Homo sapiens

<400> 33

Lys Ala Gln Thr Asp Arg Glu Asn Leu Arg Ile Ala Leu Arg Tyr

1

5

10

15

<210> 34

<211> 10

<212> PRT

<213> Homo sapiens

<400> 34

Arg Glu Ser Leu Arg Asn Leu Arg Gly Tyr  
1 5 10

<210> 35

<211> 20

<212> PRT

<213> Homo sapiens

<400> 35

Tyr Gly Arg Leu Asn Arg Leu Ser Glu Arg Arg Glu Ser Leu Arg Asn  
1 5 10 15  
Leu Arg Gly Tyr  
20

<210> 36

<211> 12

<212> PRT

<213> Homo sapiens

<400> 36

Tyr Arg Leu Ala Ile Arg Arg Ile Ala Leu Arg Tyr  
1 5 10

<210> 37

<211> 10

<212> PRT

<213> Homo sapiens

<400> 37

Arg Val Asp Leu Arg Thr Leu Arg Gly Tyr  
1 5 10

<210> 38

<211> 10

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> (1)...(10)

<223> Xaa at location 3 is D,S or N;  
Xaa at location 6 is I or N;  
Xaa at location 7 is A or L;  
Xaa at location 8 is R or L;

<220>

<223> Xaa at location 9 is G or R

<400> 38

Arg Glu Xaa Leu Arg Xaa Xaa Xaa Xaa Tyr  
1 5 10

<210> 39

<211> 10

<212> PRT



<213> Homo sapiens

<220>

<221> VARIANT

<222> (1)...(10)

<223> Xaa at location 2 is = G or R;

Xaa at location 3 is R or L;

Xaa at location 4 is A or L;

Xaa at location 5 is I or N;

<220>

<223> Xaa at location 8 is D,S or N

<400> 39

Tyr Xaa Xaa Xaa Xaa Arg Leu Xaa Glu Arg

1

5

10

<210> 40

<211> 12

<212> PRT

<213> Homo sapiens

<400> 40

Arg Ile Ala Leu Arg Tyr Tyr Arg Leu Ala Ile Arg

1

5

10

<210> 41

<211> 12

<212> PRT

<213> Homo sapiens

<400> 41

Arg Ile Ala Leu Arg Tyr Arg Ile Leu Leu Arg Tyr

1

5

10

<210> 42

<211> 12

<212> PRT

<213> Homo sapiens

<400> 42

Tyr Arg Leu Leu Ile Arg Tyr Arg Leu Ala Ile Arg

1

5

10